

Description

[Appratus to project player position indica]

BACKGROUND OF INVENTION

[0001] This invention relates to games having rules that limit the player is located when playing the game. A typical game would be Darts where the players must throw the darts from behind a "toe line". Other games have "foul lines" or other terms describing the limits on the players position or movement. "Toe line" will be used in the preferred embodiment. Toe lines are typically marked with a permanent mark such as a length of tape affixed to the flooring material. In many cases this cannot be done because the flooring material (such as carpeting) does not easily facilitate a permanent mark. In addition in some environments, such as a poorly lit bar, the toe lines are not easily visible. This invention addresses these problems.

SUMMARY OF INVENTION

[0002] This invention involves the game incorporating toe lines.

Each player must play from behind a line called the toe-line. This invention attaches to or near a game board housing or integrated into a electronic game board such as commonly seen in bars, and project a beam of light to create the toe line. The light is generated by a laser, LED, or other device producting projectable light, and is spread into the correct shaped beam that is projected as a line, lines, or an area, on the floor or other surfaces where the toe line is to appear. The distance of the toe line from the game is determined by an adjustor in the apparatus. The apparatus is mounted in a location that allows an unobstructed path to the desired location of the toe line. This location is generally, but need not be, near or on the game board. The preferred embodiment will be described in the context of a dart game, but one skilled in the art can readily apply these teaching to other games where the players position is restricted.

BRIEF DESCRIPTION OF DRAWINGS

- [0003] Figure 1 shows the device in relation to the dartboard and player and it's part in the game:
- [0004] 102 The location of the toe line device.
- [0005] 104 The gameboard for the game.

- [0006] 106 The location of the toeline.
- [0007] 108 The representation of a dart player.
- [0008] 110 The dart being throw at the board.
- [0009] Figure 2 is a listing of the component's that make up the device:
- [0010] 200 The power device.
- [0011] 202 The on/off switch.
- [0012] 204 The laser diode module.
- [0013] 206 The laser diode angle adjuster (detailed in Figure 3)
- [0014] Fig.3a and 3b show the means for adjusting the angle of the device to correct any errors in the location of where the toeline is projected:
- [0015] 204 The Laser diode module with integrated optics, as shown in Fig. 2, which produces the toe line.
- [0016] 302 The pivot point for changing the angle of projection of the toe line.
- [0017] 304 The elevator adjustor.
- [0018] 306 The unit casing.
- [0019] 308 The adjustor cam.

[0020] 310 The adjuster cam shaft.

[0021] 312 The pivot shaft.

[0022] 314 the internal strut for positioning the adjuster cam shaft and the pivot shaft .

DETAILED DESCRIPTION

[0023] The preferred embodiment of this invention will use a Laser diode (class II or IIIa) and power source inside a casing that will project the light at a default angle of 58.72 degrees to create a solid line on the ground 93" from the front of the device when placed at the height of 5"7". Embodiments for other games, or installations which do not attach the apparatus to the same location, will have differing specifications